ANEST IWATA

Dry Scroll Vacuum Pump

ISP series Air-cooled

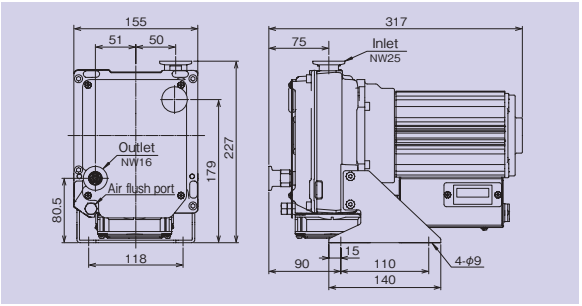
LR104996
Our product have got CSA approval (Canadian Standards Association)

CE

Scroll Meister

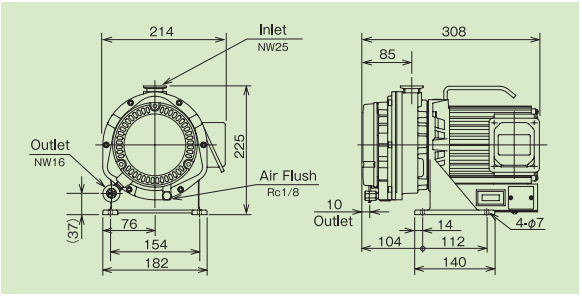
ISP-50

■ Dimensions



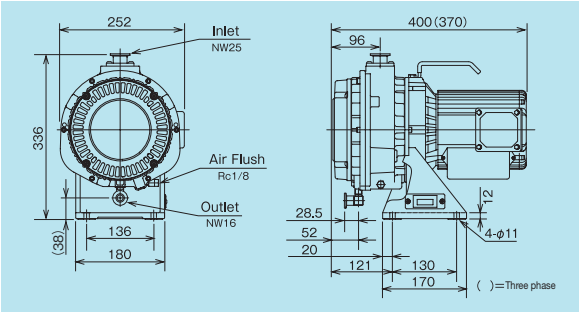
ISP-90

■ Dimensions



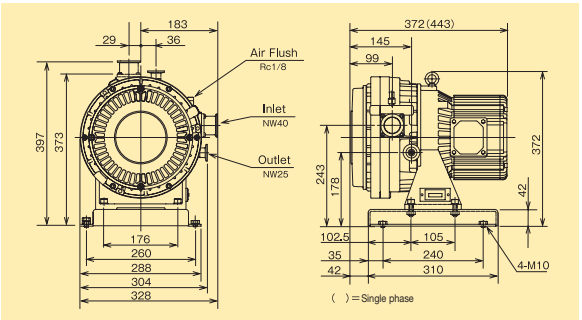
ISP-250C

■ Dimensions



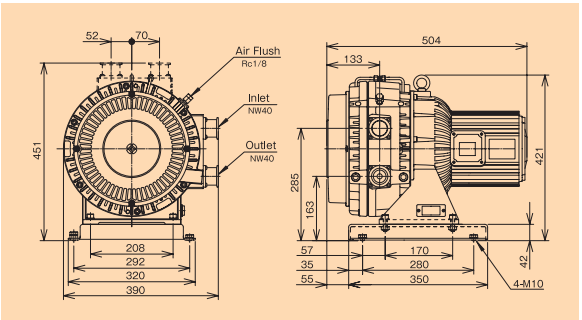
ISP-500C

■ Dimensions



ISP-1000

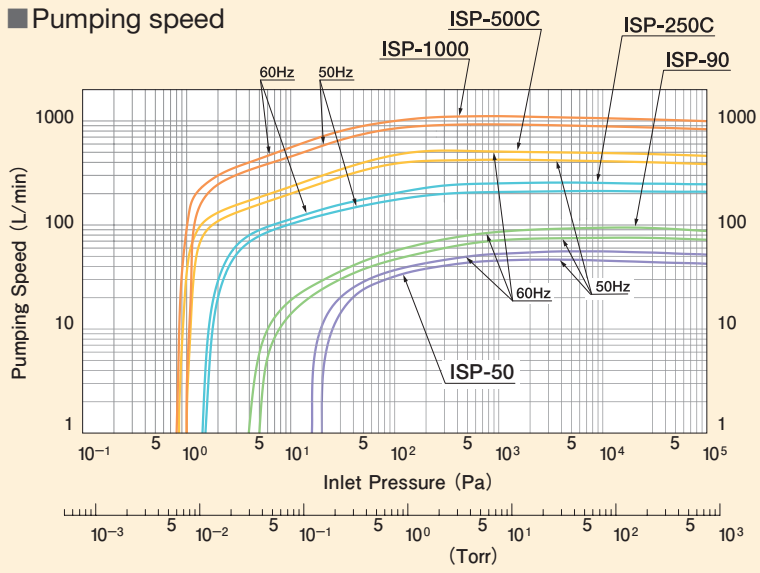
■ Dimensions

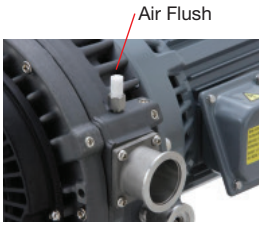


Dry Scroll Vacuum Pump

Single Phase Motor | Three Phase Motor | Vertical Inlet | Horizontal Inlet | RoHS Conformity | CSA Conformity | CE Conformity

Pumping speed





Air Flush

Purpose of Air Flush
Pumping of humid gas by vacuum pump can cause condensed moisture to remain in pump. This remaining moisture can cause failure to ultimate pressure or pump. Air Flush operation is necessary to remove remaining moisture inside. Air Flush operation also recovers ultimate pressure.

How to select

ISP-500C-T-V

- 500= Pumping Speed of vacuum pump
- T=Three phase
- V=Vertical Inlet
- S=Single phase
- H=Horizontal Inlet

The model name of ISP-1000 is ISP-1000-TVA/THA, ISP-50 is change to ISP-50-SV1; single phase 100V, ISP-50-SV2; single phase 200V

Trade name			Oil free scroll vacuum pump				
Model			ISP-50	ISP-90	ISP-250C	ISP-500C	ISP-1000
Pumping Speed	L/min 50/60Hz		50/60	90/108	250/300	500/600	1000/1200
Ultimate pressure	Pa 50/60Hz		≦20/15	≦5	≦1.6	≦1	
Motor power	kW		0.1	0.15	0.4	0.6	1.4
Voltage	V	Single phase	AC100V (50/60Hz), 115V (60Hz) (with thermal protector) AC200V, 230V (50/60Hz) (with thermal protector)	100, 115, 200, 230 (with thermal protector)			—
		Three phase	—	—	200, 208, 230, 380, 415, 460		
Noise level	dB (A)		48(at air flush57)	52(at air flush57)	58(at air flush66)	60(at air flush68)	67(at air flush74)
Weight	kg	Single phase	12	14	25	44	—
		Three phase	—	—	23	38	56
Leak tightness	Pa·m³/s		≦1×10⁻⁷	≦1×10⁻⁵			
Water Vapor Capacity	g/day		3(at air flush)	5(at air flush)	25(at air flush)		
Air flush	L/min		4	9	10		
Inlet connection	NW		25			40	
Outlet connection	NW		16			25	40
Cooling system			air-cooled				
Ambient temperature	℃		5~40				10~40

● Ultimate pressure is measured as total pressure. Noise is measured in an anechoic room.

Applications

Synchrotron Facility

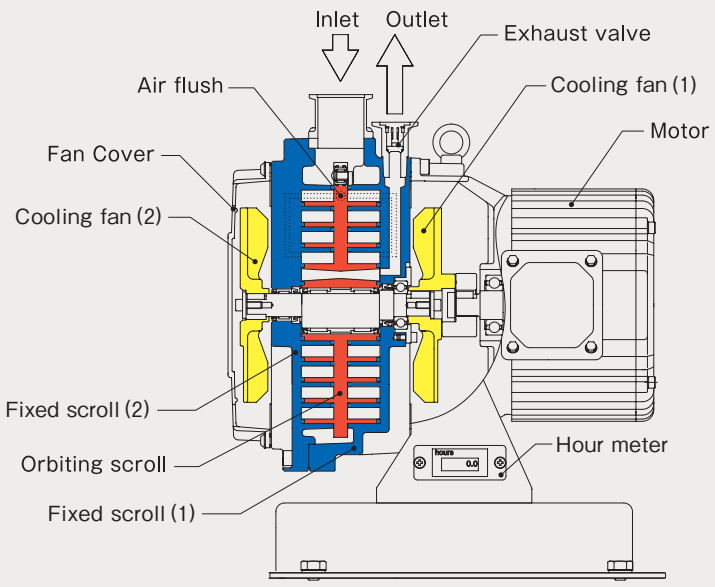
Evacuation units for beamlines in Synchrotron and Accelerator Facilities

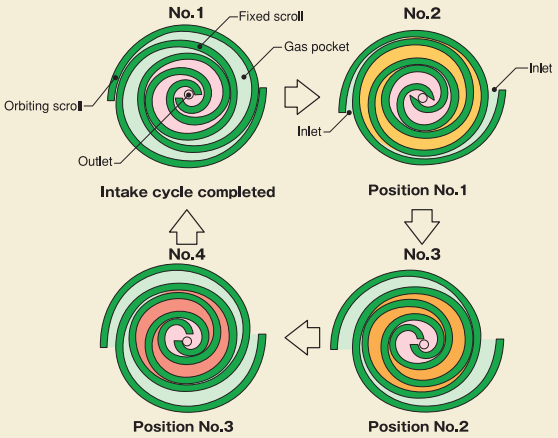
High Vacuum Pumping System

Roughing pump for Turbo Molecular Pump and Mechanical Booster Pump

- Sputtering equipment, Vacuum deposition equipment, Ion plating equipment
- Gas recovery devices
- Vacuum equipment
- Leak detectors
- Device handling system
- Surface modification, Electron beam process
- Vacuum furnace, Heat treatment furnace
- Laboratory use
- Vacuum packaging machine
- Others

Construction — Dry Scroll Vacuum Pump





Principle of pumping

As the orbiting scroll orbits as shown in the illustration from the No.1 position to the No.4 position, crescent shaped gas pockets are gradually reduced.
At the last stage compressed gas is exhausted through the center port.

⚠ Precaution on Usage

- This vacuum pump is designed for use on **Clean processes only**.
- Do not use explosive, flammable, toxic or corrosive substances or substances which contain chemicals, solvents or particles. ANEST IWATA will not perform maintenance work on pumps which have used hazardous substances.
- Do not disassemble, reassemble or alter pump and parts on user's side.
- Be sure to read operating instruction manual and understand it fully before use.
- When maintenance interval becomes due, be sure to contact your distributor.
- The warranty terms and conditions are on instruction manual. Maintenance interval and the warranty terms and conditions are period are different.
- Please contact Vacuum Pump Dept. of ANEST IWATA Corporation before exporting pumps which are shown on this catalog to out side of Japan.

⚠ Precaution on installation

Danger of explosion and fire

- Install in an area which is not exposed to explosives, flammable gas, or other hazordous environment.
- Pumps which are shown in this catalog do not have a circuit breaker for protecting motor from burnout. Install a circuit breaker to protect motor from burnout.
- Electric power cable is not included. Use electric power cable which is complied with local electric regulator.
- This vacuum pump is required periodic maintenance at interval which is shown on the instruction manual.
- Install the pump where sufficient ventilation and an open area for maintenance procedures are available.

ClassNK
ISO 9001
ISO 14001
MS
JAB
CM 005

Try to Dry

- Models, specifications and photos are subject to change without notice.

■ More Information

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ANEST IWATA Search

CAT.No.AP-V-5 2010.8.増.2.0K★47.5

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ANEST IWATA

DRY SCROLL VACUUM PUMP

DVSL series Air cooled

ドライスクロール真空ポンプ

S Dry

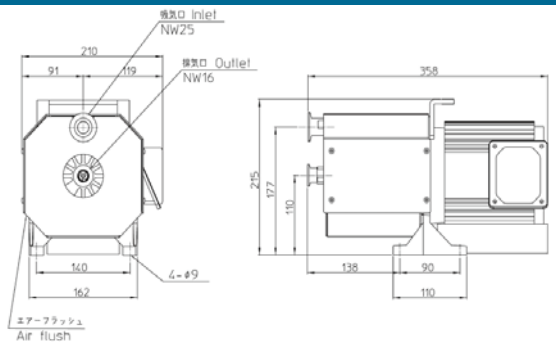
大気～真空の繰り返しと蒸気排気に強い

1φ single-phase　3φ three-phase　RoHS RoHS対応　CSA CSA対応　CE CE対応

DVSL-100C

Smart!

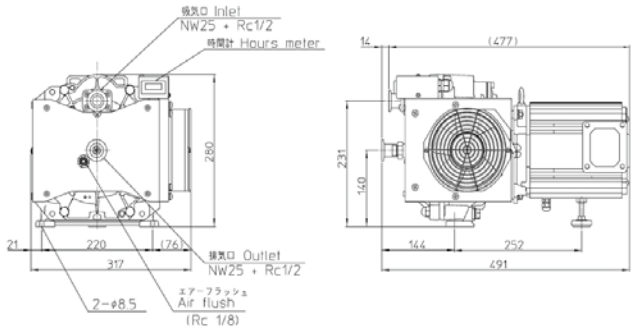
1φ RoHS CSA CE



DVSL-500C/501C

Strong!

3φ RoHS CSA CE



DVSL-501C-HC

NEW

Stronger!

3φ RoHS CE

DVSLシリーズに高耐久仕様が登場!
特殊表面処理の採用により、シール摺動面の
耐久性が従来品と比較して※3倍長持ち!
特に蒸気排気の多いお客様にお奨めです。

Introducing the HC model with increased durability in DVSL series!
It lasts three-times longer than the standard model, thanks to the specialized finishing which is applied to the sliding surface.
It is highly recommended to end-users who process water vapor frequently.

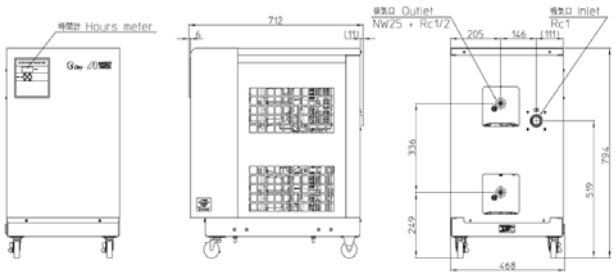
■外形寸法はDVSL-501Cと同じです。
■Product dimensions are the same as the DVSL-501C.

※数値は当社従来品との比較による参考値です。結果はお客様のご使用条件、用途により異なります。
※Numbers and values are comparison to our current products and reference only.
Results are varied depending upon application and condition of use.

DVSL-1002C

Speedy!

3φ

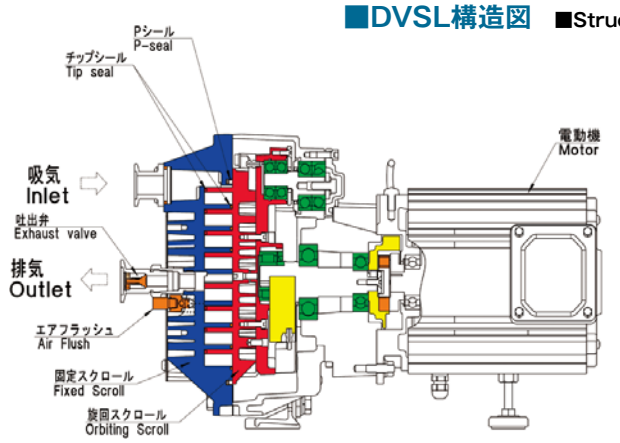


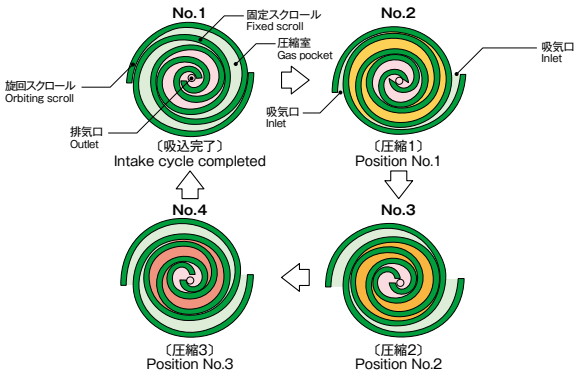
Excellence in continuous operation between atmosphere and vacuum and in displacing water vapor.

■用　途 ■Application

●真空チャック	Vacuum Chuck	●ターボ分子ポンプ粗引き	Roughing for TMP
●真空搬送	Vacuum Transport	●ガス脱気	Deaerator
●真空成型	Vacuum Forming	●ガス置換	Gas Substitution
●クライオポンプ再生	Cryopump Regeneration	●真空乾燥	Vacuum Drying
●リークテスト	Leak Test	●真空包装	Vacuum Packing

■DVSL構造図 ■Structure





■圧縮機構 ■Principle of compression

旋回スクロールが、図No.1→No.2→No.3→No.4と旋回するにしたがって、点対称の位置にある三日月状の圧縮室の容積が徐々に小さくなり、気体は圧縮されて中心部の排気口から排気されます。

As the orbiting scroll orbits as shown in the illustration from No.1 position to No.4 position, crescent shaped gas pockets are gradually reduced. At the last stage, compressed gas is exhausted through the center port.

■エアフラッシュ機能 ■Air Flush

エアフラッシュの目的

水分の吸引、あるいは湿度の高い気体を真空ポンプで排気するとポンプ内部で水分が凝縮します。凝縮した水分は、ポンプ内部に残留する場合があります。この残留水分が、到達圧力不良や故障の原因となる場合があります。そこで、内部に残留している水分を排出するためにエアフラッシュ運転を行います。エアフラッシュ運転を行うことにより内部に残留している水分を排出するばかりでなく、到達圧力の回復に効果があります。

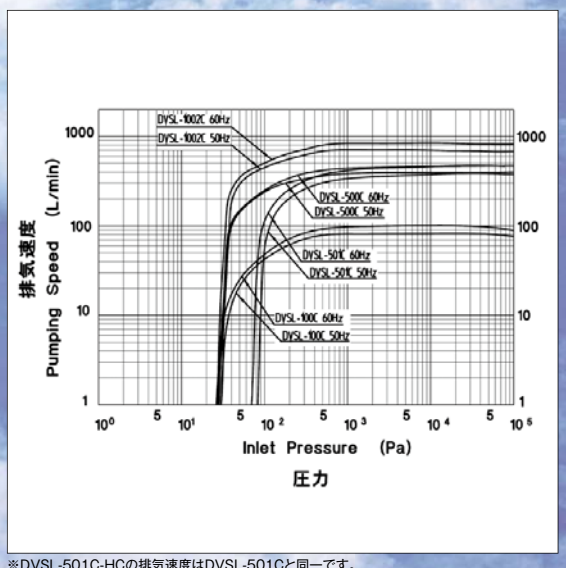
Purpose of Air Flush

Pumping of humid gas by vacuum pump can cause condensed moisture to remain in pump.This remaining moisture can cause failure to ultimate pressure or pump. Air Flush operation is necessary to pump remaining moisture inside the pump. Air Flush operation dose not only pump remaining moisture but also recovers ultimate pressure.

仕　様 Specifications

製品名 Trade name			オイルフリースクロール真空ポンプ Oil-free Scroll Vacuum Pump			
形　式 Model			DVSL-100C	DVSL-500C	DVSL-501C・DVSL-501C-HC	DVSL-1002C
設計排気速度 Displacement	L／min 50／60Hz		100／120	430／520		845／1010
到達圧力 Ultimate pressure	Pa		≦50	≦30	≦100	≦30
電動機出力 Motor power	kW 50／60Hz		0.3	0.9／1.1		2.4
電　圧 Voltage	V	単相 Single phase	100,115,200,230	–		–
		三相 Three-phase	–	200,208,230,380,400,415,460		200,220
騒音値 Noise level	dB(A)		≦62 (at air flush65)	≦64 (at air flush69)	≦64 (at air flush69)	≦69(at air flush74)
質　量 Weight	kg	単相 Single phase	15	–		–
		三相 Three-phase	–	36		118
水蒸気処理量 Water vapor	g／day		100 (at air flush)	250(at air flush)		500(at air flush)
エアフラッシュ量 Air flush	L／min		5 (at air flush)	10(at air flush)		20(at air flush)
吸気口径 Inlet connection	NW		NW25(with Rc 3/8)	NW25(with Rc 1/2)		Rc1
排気口径 Outlet connection	NW		NW16(with Exhaust valve)	NW25(with Exhaust valve)		
冷却方式 Cooling system			空冷 air-cooled			
周囲温度 Ambient temperature	℃		5~40			
バックアップ材 Back-up material			フッ素ゴム Fluorine rubber	シリコンゴム Silicon rubber	フッ素ゴム Fluorine rubber	シリコンゴム Silicon rubber

排気速度 Pumping speed



※DVSL-501C-HCの排気速度はDVSL-501Cと同一です。
※Pumping speed of DVSL-501C-HC is the same as the DVSL-501C.

サービス　Services

1年8,000時間以上使われる真空ポンプだからこそビフォアー&アフターサービスに力を入れています。
真空ポンプを長期間、安全にご使用いただくためには、整備基準1年もしくは8,000時間毎の定期メンテナンスを実施してください。

■After Sales & Maintenance Services

We, ANEST IWATA Corporation, put emphasis on before & after sales services in consideration that vacuum pumps are operated over long time of more than 8,000 hours a year.
In order to run vacuum pumps for such long time and safely, please conduct regular maintenance by maintenance standards of every year or 8,000 hours.

■サービスネットワーク

■Service Network

■横浜サービスセンター

サービスセンターでは当社真空ポンプのメンテナンス・修理作業、メンテナンス教育の実施、真空セミナーの開催等を行っております。

■Yokohama Service Center

At Yokohama Service Center, maintenance and repair work of our vacuum pumps, maintenance training and vacuum seminars are always available.

■上海サービスセンター

中国市場のメンテナンス・修理業務を行っております。
連絡先:阿耐思特岩田産業機械（上海）有限公司
TEL. 86-(0)21-6407-9713

■Shanghai Service Center

Maintenance and repair work for Chinese market are available.
Address: ANEST IWATA SHANGHAI Corporation
TEL: 86-(0)21-6407-9713

⚠ 安全上のご注意

- ●この真空ポンプは、クリーン排気仕様です。
- ●人体に有害なガス、爆発、発火の危険性のあるガス、腐食性ガス、薬品、溶剤、粉体等は流さないでください。
- ●特殊なガス等を排気した真空ポンプに対しては、当社では保守をお引き受けできませんのでご了承ください。
- ●製品の改造、部品の改造は絶対にしないでください。
- ●この真空ポンプは、取扱説明書記載のご使用方法と定期整備が必要です。
- ●保証期間は取扱説明書に準拠します。また定期整備基準と保証期間は異なります。
- ●本カタログに記載しています製品を日本国外に輸出する際は、外国為替および外国貿易管理法の規定に基づく判定が必要となりますので、当社に必ずお問い合わせください。

⚠ 設置上のご注意

- ●爆発、発火性ガス、可燃性の無い場所に設置してください。
- ●本製品には保護装置は付属されていません。
  適切な漏電ブレーカ等の設置により保護を行ってください。
- ●本製品には電源ケーブルは付属されていません。
  取扱説明書記載の定格に合った電源コードを使用してください。
  または当社オプションをご利用ください。
- ●本製品は定期的なメンテナンスが必要です。
  保守点検かつ十分な換気が行える場所に設置してください。

⚠ Precaution on Usage

- ●This vacuum pump is suitable for use on **Clean processes only**.
- ●Do not use explosive, flammable, toxic or corrosive substances and substances which contain chemicals, solvents or particles. ANEST IWATA will not perform maintenance work on any pumps which have been used for hazardous substances.
- ●Do not disassemble, reassemble or alter pump and parts on user's side.
- ●Be sure to read instruction manual and understand it fully before use.
- ●When maintenance interval has been reached, be sure to contact our distributor who sold it to you.
- ●The guarantee period is based on instruction manual. Maintenance interval and the guarantee period are different.
- ●Please contact Vacuum Pump Dept. of ANEST IWATA Corporation before exporting pumps shown on this catalog to out side of Japan.

⚠ Precaution on installation

Danger of explosion and fire

- ●Install in an area which is not exposed to explosives, flammable gas, or other related things.
- ●Pumps shown in this catalog do not have breaker for avoiding motor burnout by installing. Avoid motor burnout using breaker.
- ●Electric source cord is not included in the pump. Use electric source cord which is instructed by instruction manual.
- ●This vacuum pump requires regular maintenance as described in the instruction manual. Install the pump where there is enough ventilation and maintenance available.

●本カタログに記載の仕様は商品改良のため、予告なく変更することがあります。
●Models,specifications and photos are subject to change without notice.

Try to Dry
環境のため、ドライにこだわります

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■お問い合わせは

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